

Title (en)
Through-type fishing rod

Title (de)
Angelrute mit innerer Schnurführung

Title (fr)
Canne à pêche à parcours de fil intérieur

Publication
EP 0933024 A1 19990804 (EN)

Application
EP 99101875 A 19990128

Priority

- JP 3042898 A 19980128
- JP 12971498 A 19980424
- JP 18683898 A 19980617

Abstract (en)
A through-type fishing rod includes a hollow rod pipe having an internal surface and an external surface. A plurality of line guide protrusions are protruded radially inwardly from the internal surface. Each of the line guide protrusions has front and rear ends, an apex, and front and rear slopes. A water-repellent layer is provided to extend continuously between the line guide protrusions, thereby entirely cover the front and rear ends, the apices and the front and rear slopes of the line guide protrusions and the internal surface of the rod pipe. <IMAGE>

IPC 1-7
A01K 87/00

IPC 8 full level
A01K 87/00 (2006.01)

CPC (source: EP US)
A01K 87/005 (2013.01 - EP US)

Citation (applicant)

- JP H1030428 A 19980203 - MATSUSHITA ELECTRIC IND CO LTD
- JP H10129714 A 19980519 - ASAHI GLASS CO LTD, et al

Citation (search report)

- [A] WO 9507609 A1 19950323 - HARE GERARD M [CA]
- [A] FR 1541807 A 19681011
- [A] US 5703194 A 19971230 - MALIK ASLAM A [US], et al
- [X] PATENT ABSTRACTS OF JAPAN vol. 097, no. 007 31 July 1997 (1997-07-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 097, no. 007 31 July 1997 (1997-07-31)
- [PA] PATENT ABSTRACTS OF JAPAN vol. 098, no. 006 30 April 1998 (1998-04-30)

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0933024 A1 19990804; EP 0933024 B1 20040728; DE 69918873 D1 20040902; DE 69918873 T2 20041216; US 6192615 B1 20010227

DOCDB simple family (application)
EP 99101875 A 19990128; DE 69918873 T 19990128; US 23789399 A 19990127